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ABSTRACT

A three-stage developmental model of the socialization of altruism as a reinforcer was tested. The model posits mood as a mediator of helping behavior. The first stage of the model is characterized by a relatively low level of altruistic responding, regardless of mood state, among preschool children; the second by the acquisition, among primary-school-age children, of norms for social behavior; the third by the internalization of reward among adolescents. Following the induction of either a sad or a neutral mood, 192 children in three school-age groups were given an opportunity to share under either a public or private sharing condition. Age groups consisted of kindergarten childen and 1st-grade students, 4th- and 5th-grade students, and 9th- and 10th-grade students. Unlike other studies, a second mood check immediately followed the sharing opportunity to test the effects of sharing on mood. Despite the effectiveness of the mood induction and strong age effects, support was not found for the hypothesis that the sharing condition affects sharing behavior differentially across age. In sum, results provide weak support for the notion that moods can affect helping, but no support for the notion that helping relieves negative mood states. The discussion presents a conceptual analysis of the three-stage model and focuses on suggestions for future mood-helping research. (Author/RH)

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Mood and Sharing Condition Effects on the Display of Altruism

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Abstract

A three-stage model of the socialization of altruism as a reinforcer, which posits mood as a mediator of helping behavior, was tested. Following the induction of either a sad or a neutral mood, 192 children in three school-age groups were given an opportunity to share under either a public or private sharing condition. Unlike other studies, a second mood check immediately followed the sharing opportunity to test the effects of sharing on mood. Despite the effectiveness of the mood induction and strong age effects, support was not found for the hypothesis that sharing condition would affect sharing behavior differentially across age. The discussion presents a conceptual analysis of the 3-stage model and focuses on suggestions for future mood-helping research.

Over the last fifteen years or so, a large number of studies have considered the role of mood state as a mediator of adult helping behavior (for reviews see, Cialdini, Kenrick, & Baumann, 1982; Mussen & Eisenberg-Berg, 1977; Rosenhan, Salovey, Karylowski, & Harris, 1981; Staub, 1978; and Wispe, 1980). In general, studies using adults typically show that negative mood leads to greater altruism. More recently, a number of studies investigating the relationship between mood states and altruism in children have appeared (e.g., Barden, Garber, Duncan, & Masters, 1981; Cialdini & Kenrick, 1976; Moore, Underwood, & Rosenhan, 1973; Rosenhan, Underwood & Moore, 1974; Underwood, Froming, & Moore, 1977). In contrast to research with adults, studies with young children indicate that children share more when in a positive mood, and are either less generous or no more generous than controls when in a negative mood.

In an attempt to reconcile these divergent findings, Cialdini and Kenrick (1976) proposed that the negative state relief (NSR) model (Cialdini, Darby & Vincent, 1973) explained the observed contradictory age effects. According to this model, persons experiencing a negative mood will attempt to make themselves feel better, and any positive reinforcing action will offer relief from the negative state. Altruism, consequently, can be regarded as hedonistic in that it results from a need to decrease personal discomfort (e.g., Weiss, Buchanan, Alstatt, & Lombardo, 1971). Weiss et al. (1971) have argued that altruistic behavior can become a secondary reinforcer; that is, after repeated pairings with primary reinforcers, altruistic behaviors will eventually occur in the absence of any external reward. Consequently, the developmental changes in the influence of negative mood on altruistic responding may be explained by socialization and reinforcement processes. Cialdini and his colleagues have argued (Cialdini, Baumann, & Kenrick, 1981;

Cialdini et al., 1982; Cialdini & Kenrick, 1976; Kenrick, Baumann, & Cialdini, 1979) that adults, because they have been involved in the process of socialization for a longer time than children, have learned to reduce a negative mood state by acting altruistically, should the opportunity to do so present itself. Conversely, young children who have not yet accumulated as much socialization experience would not likely display altruistic behavior when in a negative mood, for acting altruistically has not yet acquired reinforcing characteristics.

In the studies cited, children's sharing was generally elicited under private conditions in order to remove the possibility that the experimenter served as a source of social approval. The logic is obvious: if a primary reinforcer is potentially present (i.e., an experimenter who might administer a reward), then an increase in altruistic behaviors should follow. More specifically, a prosocial behavior may be performed because there was an expected external reward. Consequently, donating in public vs. private should differentially affect sharing behavior for some children.

Kenrick et al. (1979) have recently tested this extension of the negative state relief model, and found that 1st-3rd grade children helped the most in the negative mood, public condition. On the basis of these findings they proposed a three-stage model for the socialization of altruism. The first stage of the model is characterized by a relatively low level of altruistic responding, regardless of mood state, among preschoolers who have had limited experience with socialization processes. Thus, the model would suggest that, among preschoolers, increases in sharing behavior, regardless of mood, would not likely occur since altruistic responding as yet possesses no self-reward characteristics. The model would also predict that, because young children have limited socialization experience, their sharing behavior is not

likely to be affected by public or private sharing conditions.

Stage two is characterized by the acquisition, among primary school age children, of norms for social behavior. At this stage, prosocial behavior is more likely to be elicited when in the presence of potential social reward or approval (e.g., in a public sharing condition). At this stage, affect is also likely to be an important mediator of behavior when the child is presented with an altruistic opportunity. In a negative mood state, performance of an altruistic behavior in public could lead to the acquisition of a reward which would subsequently reduce that negative state, predisposing the individual to be more likely to help when again in a negative mood public state.

The final stage emerges in adolescence and is characterized by the internalization of reward. That is, altruistic responding acquires secondary reinforcing properties and thus becomes self-rewarding to the individual. Consequently, by high school age, increases in altruistic responding under negative mood conditions are likely regardless of whether the opportunity is public or private.

This three-stage model was derived from a series of studies over the past decade. Most important were those conducted by Kenrick et al. (1979), which examined the effects of public and private opportunities for donating, and by Cialdini and Kenrick (1976), which examined some aspects of the developmental nature of the model. The purpose of the present study was to combine the conditions of these experiments in order to test the three-stage model in its entirety. The procedure used was similar to that used by Kenrick et al. (1979). After completing a bogus task, included to allow the experimenter to give students money, a neutral or negative mood was induced through a reminiscence strategy similar to the original technique used by Moore et al. (1973). After a mood check, students were given the opportunity to donate

either in public or in private. However, unlike previous studies, a second mood check was also administered immediately after the students' opportunity to donate had occurred. This second mood check was added in order to determine the effect of donation on negative mood since the three-stage model would predict that older children, when in a negative mood, would respond altruistically in order to obtain relief from this state. Consequently, a decrease in negative affect should follow sharing behavior.

The purpose of this study was to test five hypotheses suggested by Kenrick et al.'s three-stage model. First, sharing behavior was expected to increase with age. Second, for the youngest children (stage 1) helping was not expected to vary as a function of either mood or sharing condition. Third, for children in middle childhood sharing was expected to be greatest in the negative mood, public condition. Fourth, for the adolescents it was expected that most helping would occur in the negative mood condition, regardless of sharing condition. Finally, since altruistic responding while in a negative mood is supposed to reduce a negative affective state in the two older age groups, it was expected that a greater difference would occur in the mood check scores from time one (prior to sharing) to time two (immediately after sharing) for students in a negative mood than would occur for those in a neutral mood.

Method

Subjects

Data were obtained on 192 parochial school students equally divided by sex and age-group (kindergarten and first-grade; fourth and fifth-grade; ninth and tenth-grade). The mean age for each group was, from youngest to oldest, 6.0, 10.0, and 15.2 years. Twenty-one of these students were black and they were distributed fairly evenly across both sexes and all three age

groups. Three white undergraduate students (two were female) and one white male graduate student served as experimenters.

Procedure

After obtaining school and parental permission, children were invited to participate. Data were collected in a small room away from the students' classrooms. The room contained a table, several chairs, a tape recorder, and a jar labeled "Donations for Other Students." Students were randomly assigned for testing to one pair of experimenters (one male and one female were in each pair). The first experimenter informed students that they would be participating in two separate activities, a "hearing task" and an "imagination task." (The youngest children were told they would be playing two separate games). Students were also told they could earn money for participation in each study. The experimenter then pointed to the donation jar and said that at the end of the study they could share some of their money with students who were not able to participate in the study (see Moore et al., 1979, p. 100).

The hearing test was then administered. This test consisted of having students listen to a taped recording of five pairs of piano tones in order to identify whether the tone pairs heard were the same or different (adapted from Kenrick et al., 1979). When this activity ended all students received 50 cents in nickels (in a small packet) and were told that their performance was typical of the average student. The first experimenter then left the room and a second experimenter, of the same sex as the subject, entered and, prior to the second activity (the imagination task), gave the student five nickels stating that "everyone gets 25 cents for this part, because there are no right or wrong answers." Each student therefore, received a total of 75 cents (15 nickels). This strategy was followed to help insure that all subjects were in

a similar mood state prior to the induction of the two experimental mood states (Cialdini et al., 1973).

Mood manipulation. The imagination task was used to alter students' mood state. Negative mood subjects were asked to close their eyes and think about a sad experience. The experimenter asked each student to share this sad experience with him/her, and subsequently remarked on the sadness of the situation (e.g., "Yes, it is sad when someone's dog runs away."). Each student was then asked to continue thinking about the sad experience. In the neutral mood condition, students were asked to close their eyes and think about a chair, book, or some neutral object in the room and to continue thinking about the object (adapted from Cialdini & Kenrick, 1976; Moore et al., 1973). Following the induction of a mood state, a mood manipulation check was administered. The experimenter asked the subject, "How does what you were just thinking about make you feel?" and the subject was asked to point to one of five pencil drawn pictures of a child's face, representing a range from very happy through neutral to very sad. The pictures were the same sex as the subject and the response given was scored on a five point scale.

Sharing opportunity. Following the mood manipulation check, the first experimenter returned and the second left the room. The returning experimenter was thus blind to each subject's mood condition. In the private sharing condition, the experimenter began rewinding the tape used in the hearing task, stating that the experiment was almost over, but that first he/she must check with the other experimenter. Attention was again called to the donation jar; students were reminded that they could share some of their earnings if they wanted to do so. The experimenter then left the student alone for sixty seconds. In the public condition the experimenter began rewinding the tape and reminded the student about donating, but the

experimenter remained in the room for sixty seconds and checked some papers (adapted from Kenrick et al., 1979). After the 60 seconds had passed in each condition a second mood check was administered using the same drawings as before.

For ethical reasons, all students in the negative mood condition were asked to think about happy events before they were dismissed. All subjects were thanked and urged not to discuss the experiment with other students.

All procedures used in this study were pilot tested. This testing indicated that students at all ages valued the $.75, and would not readily just "give it away." In addition, although kindergarten and first-graders valued money, some appeared unsure what could be purchased with specific amounts of small change. Thus, at the youngest ages, children were given brief instruction on the amount of money and what could be purchased with it, for example candy or lunch at their school.

Results

A preliminary four-way ANOVA (age X mood X sharing condition X experimenter team) indicated that there were no significant effects for experimenter team for either the amount donated or the mood check data.

Manipulation check. The results of the four-way ANOVA (age X mood X sharing condition X gender) using the initial mood check data revealed the expected main effect for mood ($F(1,168)=458.36$, $p<.0001$). In addition, there was an unexpected interaction of mood induction with age ($F(2,168) = 3.76$, $p < .01$), mood induction with gender ($F(1,168)=4.12$, $p<.05$), and a marginally significant age by mood by gender interaction ($F(2,168)=2.82$, $p < .06$). Subsequent analyses of simple effects revealed that at grades K-1 and 4-5, mood was the only variable which yielded a significant effect ($F(1,168) = 230.42$, $p < .0001$ and $F(1,168)=128.70$, $p<.0001$, respectively). The oldest

children (grades 9-10) were also affected by the mood manipulation ($F(1,168)$ = 111.21, p <.0001), but at this age level the mood by gender interaction was significant ($F(1,168)=8.27$, $p<.01$). This interaction indicated that the mood manipulation had the intended effect for both males ($F(1,168)$ = 29.41, p <.0001) and females ($F(1,168)=90.07$, $p<.0001$). As indicated by the F values, however, the effect was greater for 9-10th grade females than for same age males (see Table 1). In sum, although the mood manipulation produced the intended effect across all conditions, the magnitude of the effect (as indicated by the F values) was somewhat greater for the younger age groups and 9-10th grade females.

Insert Table 1 about here

Analyses of sharing behavior. Four of our hypotheses were tested by a four-way ANOVA (age X mood X sharing condition X gender), using amount of money donated as the dependent variable. As expected, hypothesis 1, which postulated that sharing would increase with age was supported ($F(2,168)$ = 33.57, p <.001). Subsequent comparisons revealed that the middle childhood group donated significantly more than did the early childhood group ($t(168)$ = 2.27, p <.03) and adolescents donated significantly more than did the middle childhood group ($t(168)=5.68$, $p<.001$). Table 2 contains a breakdown of mean amount donated by age, gender, mood, and sharing condition.

Insert Table 2 about here

In addition to the significant age effect, the omnibus F test revealed that the mood by sharing interaction also yielded a significant effect ($F(1,168)$ = 4.22, $p<.05$), but, as is discussed below, the pattern of this interaction is not congruent with the three-stage model. Furthermore, this effect must be considered in light of the four-way interaction which

approached significance ($F(2,168)=2.43$, $p=.09$). In order to examine our hypotheses, the effects of mood, sharing, and gender were examined at each age level. Tests of simple effects[1] were conducted to test our second hypothesis that the sharing behavior of the youngest children would not be affected by sharing condition or mood state. As predicted by the three-stage model, no effects of mood state or public/private sharing condition on sharing behavior were observed. In addition, gender was also not related to sharing. These data also support the notion that young children help infrequently. Only 28.1% of the children at this age donated at all.

Hypothesis 3 predicted that children in the middle childhood years would be affected by both mood and sharing condition, and that sharing would be greatest in the negative mood, public condition. Contrary to predictions based on the three-stage model, the sharing behavior of these children was not affected by sharing condition, mood, or gender.[2] While this result does not support the three-stage model, it is consistent with Cialdini and Kenrick's (1976) findings of no significant difference between the sharing behavior of negative and neutral mood fifth-seventh graders.

Our fourth hypothesis predicted that adolesents in the negative mood condition would share more than those in the neutral condition regardless of sharing condition. At this age level, the analysis of simple effects revealed a strong mood by sharing condition by gender interaction ($F(1,168)=7.42$, $p=.007$). Further analysis revealed that males were not affected by either mood state or sharing condition, while females were. For the 9-10 grade females, the simple effect of mood by sharing condition was highly significant ($F(1,168)=16.81$, $p<.0001$). This interaction indicates that, when in public, the amount donated by these females did not differ between the neutral and negative mood conditions, although the trend was opposite that predicted by

the model ($F(1,168)=5.22$, $p=.02$; see footnote 1). When in private, however, the amount shared by females in a negative mood was significantly greater than that shared by females in a neutral mood ($F(1,168)=12.35$, $p<.0005$; see Figure 1). The results for the females in the private condition are consistent with a study by Baumann, Cialdini & Kenrick (in press) which found that for children ages 12 and 13 who shared in private females shared more when in a negative mood, while males shared more in a neutral mood (the results for the public condition were not reported). Cialdini et al. (1981,1982) contend that these results support the three-stage model. We will discuss these findings in more detail shortly.

Insert Figure 1 about here

Negative mood relief analyses. Based on hypothesis 5, we expected that negative mood would lessen as a function of sharing behavior and the data do offer support for this contention (see Table 1). The mood change experienced by the negative mood students (mean change = 2.36) was significantly greater than that experienced by those in the neutral mood condition (mean change = .36; $F(1,168)=160.08$, $p<.0001$). At check 2, however, the mood rating for the negative mood subjects ($M=3.86$) was still lower than that of the neutral mood subjects ($M=4.28$; $F(1,168)=9.29$, $p<.005$). It appears that, as expected, both the neutral and negative mood subjects experienced a positive mood change from mood check 1 to mood check 2, and the change was much greater for those in the negative mood condition. In fact, a repeated measures ANOVA at each level of the mood variable revealed that the change from check 1 to check 2 was significant for both the negative ($F(1,95)=310.47$, $p<.0001$) and the neutral mood subjects ($F(1,95)=17.26$, $p<.0001$). Nevertheless, it is not clear whether this change in mood was due to the relief/reward properties of donating or if

the change was due to the transitory nature of the induced mood. If the effect was due to sharing, then one would expect to find differences in the amount of mood change across age groups, mood and sharing conditions. That is, the model predicts that donating alleviates the negative mood through some internalized self-reward system (at stage 3), or an expectation of potential external rewards (at stage 2); therefore, we should expect to find effects for mood change analogous to those predicted by hypotheses 1, 2, 3, and 4 for the amount donated data. For example, 9-10th grade children in negative mood conditions would be expected to show more mood change than those in the other same age conditions. A four-way ANOVA (age X mood X sharing condition X gender) did not, however, yield results congruent with theoretical predictions. Especially surprising, in view of the strong age differences in the amount donated data, was an absence of a main effect for age on mood change ($F(1,168) = .57$). In fact, other than the significant main effect for mood reported above, only the age by mood by gender interaction yielded a significant effect ($F(2,168)=3.73$, $p < .03$). Briefly, analysis of simple effects revealed that in grades K-1, gender was related to mood change only in the negative mood condition, with males ($M=2.81$) showing more mood change than females ($M=2.06$; $F(1,168)=3.75$, $p=.05$). This result is difficult to interpret within the framework of the theory. The analysis of simple effects for the mood by gender interaction for the 4-5th graders revealed no significant differences. For the 9-10th graders, the simple effects analysis indicated that the mood by gender interaction approached significance ($F(1,168)=2.93$, $p < .09$). Further analysis of this effect revealed that, unlike the youngest age group, 9-10 grade females ($M=2.88$) showed more mood change than did same age males ($M=1.88$) in the negative mood condition ($F(1,168)=6.67$, $p<.01$). No gender differences were evident in the neutral

mood condition. This result might be consistent with the model (see Baumann et al., in press) and will be discussed shortly. It should be noted, however, that none of the simple effects of this four-way ANOVA would be considered statistically significant if the more stringent alpha criterion applied to the amount of sharing analyses were also applied to these analyses. Overall, then, the mood change data do not provide convincing support for the relief notion of altruism.

The above mood change analyses were conducted using all subjects, whether they shared or not. Yet the theory predicts mood change only after sharing. Thus, it might seem appropriate to conduct the above analyses using only subjects who shared. As it happens, analyses using only these children yields results which are essentially identical to those reported above. Such analyses, however, are not necessary to properly test the model. In fact, the hypotheses implicitly assume that the analyses include all subjects. In other words, sharing behavior is assumed to be affected by the independent variables (age, mood, sharing condition and gender) and as such will vary across cells. The expectation is that cells with lowered sharing behavior should also have lowered mood change, and vice versa. Thus, as with the amount donated analyses, analyses of mood change including all subjects provides the correct test of the model given our hypotheses. Nevertheless, in this study, including all subjects, or only those who shared, in the analyses made little difference.

Discussion

Kenrick et al. based their three stage model for the development of altruism on data generated by two separate studies, one which examined mood effects by age (Cialdini & Kenrick, 1976), and one which examined effects of sharing conditions on the donating behavior of one age group (Kenrick et al.,

1979). The present investigation represents the first known test of this model which includes both age and sharing condition. Essentially our data provide mixed support for the model. The data supported the model's predictions for the sharing behavior of stage 1 children as well as the strong age related differences in sharing behavior. At stage 2 our data did not support the model in that there was no evidence of differential donating as a function of mood and sharing conditions. Instead the data revealed a pattern similar to that obtained by Cialdini and Kenrick (1976).

The interpretation of the stage 3 findings is somewhat more difficult. According to Kenrick et al.'s (1979) initial formulation of the model, at stage 3 altruism has become self-gratifying and therefore those in the negative mood condition should evidence more helping regardless of sharing condition. The data from this study do not completely support this hypothesized pattern. Instead, the stage 3 findings yielded a gender difference such that females showed the hypothesized pattern of increased sharing under negative mood only when in the private condition; no differences in sharing by females were observed in the public condition. Sharing behavior of males, on the other hand, was not affected by either mood state or sharing condiiton. These findings do not initially appear to provide much support for Kenrick et al.'s conceptualization of stage 3. It should be noted, however, that Baumann et al. (in press; also described in Cialdini et al., 1981, 1982) have recently modified somewhat the description of the effects of a negative mood on helping in stage 3. They have proposed a transition period between the ages of 12 and 15 during which females would be more likely than males to use helping as a means of dispeling negative mood. They argue that females have had more experiences in which helpfulness was paired with external reward and that they should, therefore, internalize the

reward value of altruism earlier than males. Baumann et al. found support for this notion. In their study, 12 and 13 year old females shared more in a negative-private condition than in a neutral-private condition (results for the public condition were not reported). Males, on the other hand, showed the opposite pattern.

Baumann et al.'s modified model does not, however, fully explain our stage 3 results. Our findings for the stage 3 females sharing in private are consistent with the Baumann et al. study, but the results for the males sharing in private are not. Even more importantly, the results of our public sharing condition are not consistent with the modified model. If the females have internalized the reward value of altruism, they should show a pattern of sharing predicted by the NSR model. That is, females should share more in a negative mood condition, regardless of sharing condition, in order to alleviate the aversive mood state. This pattern of results was not obtained. Instead, stage 3 females in the public condition shared less in the negative mood condition than in the neutral mood condition (though this difference was not considered statistically significant, $p=.02$, using the more stringent alpha level; see footnote 1). This pattern of responding is opposite to that observed in the private condition as well as contrary to the model's predictions. The pattern of male sharing behavior was equally inconsistent with the model. If we assume that the results from the private condition indicate that helping has not yet become a secondary reinforcer for males, then we should expect that they would still show a pattern of stage 2 responding. That is, in the public condition the males in a negative mood should show increased sharing behavior. This did not occur, there were no differences between any of the conditions for stage 3 males. The assumption that females have internalized the reward value of altruism earlier than males

is a difficult one to support directly. We do not have direct evidence for this, nor did Baumann et al., and no indirect evidence for this was found in the sharing pattern of our data. Furthermore, in our study stage 3 subjects had a mean age of 15.2 which is somewhat older than the age of children in the hypothesized transition period. Thus, it is difficult to explain our observed gender differences and inconsistent pattern of sharing behavior within the context of the model.

There is, however, a possible explanation for the gender difference and inconsistent pattern of sharing. The manipulation check revealed that the magnitude of the effect of mood was somewhat stronger for stage 3 females than for stage 3 males. It is possible that if males are socialized to be less emotional, a strong mood induction would be more difficult to induce among males. If the induced mood is not strong, it is less likely, according to the model, that donating would take place. This explanation is not, however, very plausible. First, although the magnitude of the effect of the mood induction was not as strong for stage 3 males as it was for stage 3 females, it was still quite strong ($F(1,168)=29.41$, $p<.0001$). Second, this explanation does not account for the pattern of sharing behavior among females in the public condition being inconsistent with the model's predictions. In short, then, the donation data do not support the model's conceptualization of stage 2 and stage 3 helping behavior.

Perhaps it is not surprising that the present investigation did not find an effect of negative mood on sharing behavior. Previous research has shown that negative moods can either decrease, increase, or have no effect on helping behavior. The three-stage model, which does attempt to account for these apparent contradicting effects received only partial support from our sharing data, and was not supported by our mood check data. An explanation

for our findings, that may at first seem consistent with the three-stage model, concerns the cost of helping. In this study, the experimental earnings ($.75) were, relatively speaking, considerably more than the value of such earnings in other studies. While one study did use pennies, the others have offered only ballons, pencils, coupons or tokens (which could be redeemed much later for prizes). Perhaps it is more difficult for children and adolescents to part with money they hold in their hand than it is for them to part with paper coupons, plastic chips, or even pennies. If this is the case, then it seems that sharing behavior may be affected more by the value of the objects to be shared: objects of relatively little or of no immediately redeemable value (e.g.,tokens) may be more readily shared than are objects of more immediate redeemable value (e.g., nickels). Thus, the value of the object to be shared may override the potential influence of mood state.

This explanation is consistent with a study by Weyant (1978) who found that negative mood increased helping behavior only when the costs to the helper were low and the benefits high. Weyant concluded that the perceived reward value for helping is a critical factor in determining whether an individual in a negative mood will help. Based on Weyant's (1978) study, Kenrick et al. (1979) qualified the NSR model such that any procedure that reduces the perceived reward value for helping should reduce the tendency for persons experiencing a negative affective mood to help. Thus, it could be argued that in our study the cost of helping was too high and hence the likelihood of helping in a negative mood was decreased.

Although it is true that high costs reduce helping in general, and may reduce the likelihood of helping under a negative mood in particular, it is not clear that the costs involved in this study were high. The children and adolescents in our study were not asked to share all of thier earnings. If

negative mood increases the likelihood of helping we should expect that children in a negative mood would be more motivated to share than those in a neutral mood, and, hence, that they should share more nickles than the less motivated neutral mood subjects. The negative mood subjects should share more unless the perceived reward value is exceeded by the potential costs. Only if the baseline cost to help was high should we expect that negative mood would not affect helping in our study. For example, if instead of giving our subjects 15 nickles, we had given them three quarters, the baseline cost of sharing would have been at least five times greater. It seems unlikely that in the present study the baseline cost of helping ($.05) was too high and therefore reduced the likelihood of sharing in a negative mood. This leads to a more general problem with the notion that "any procedure that reduces the perceived reward character of a helping act should reduce its ability to relieve depressed affect and should, consequently, weaken the negative-mood-leads-to-help-effect." (Cialdini et al., 1982, p.349). That is, it is difficult to know when a procedure will reduce the perceived reward character of a helping act. Presumably this can vary considerably across individuals and also depends upon how self-rewarding altruism is for an individual. If altruism is highly self-rewarding for an individual, then that person should be willing to help under much higher costs.

In addition to the amount of sharing behavior, we also measured the amount of mood change as the NSR model predicts that sharing would lessen negative mood (at least in stage 3 subjects). In spite of the strong mood change effects, which indicated that negative mood did lessen, we found little evidence that these effects were due to the relief properties of sharing, though the 9-10th grade data provide some support for the model. That 9-10th grade females in the negative mood condition showed more mood change than did

males is consistent with the Baumann et al. study. It is not consistent, however, with the finding that the 9-10th grade females in the negative mood, public condition tended to share less than those in the neutral condition. It is, therefore, more likely that the difference is due to the initial difference in the mood check data. That is, it seems reasonable to assume that if the males reported less extreme negative moods initially their mood change would not be as great as that of the females. Consequently, it appears that the large observed mood change in the negative mood condition is best explained by the transitory nature of the induced mood and not by the relief properties of the sharing. This interpretation is consistent with a recent study by Frost and Green (1982) which found that subjects who merely sat quietly showed a significant improvement of depressed mood. It appears that, as with the donation data, the mood change data do not provide strong support for the model.

The results of this study do not, then, provide support for either the relief notion of helping behavior or the view that sharing condition will affect helping behavior. Furthermore, there was only modest evidence that negative moods produce increases in helping behavior. Thus, these data indicate that the three-stage model is not completely general. That is, we should not assume that helping is always, or even often, used in an instrumental fashion as Cialdini and his colleagues suggest. Others have also noted that negative moods do not always lead to increases in prosocial behavior. For example, Staub (1978) noted that Cialdini and his colleagues "suggest that negative affect beyond early childhood generally increases prosocial behavior, whereas I believe that the findings indicate that negative experiences of many kinds, or the threat of such experiences, and the resulting psychological states either have no effect on prosocial behavior or

decrease it" (p.307; see also Rosenhan et al., 1981, for a similar view).

There may be several reasons why the three-stage model is not completely general. One might be the model's assumption that people are not likely to help unless they "have been exposed to sufficient socialization messages regarding altruism to have acquired a cognitive representation of the norms regarding helping" (Cialdini et al., 1981, p. 207). To support this assumption Cialdini et al. (1981) cite evidence that children in preschool rarely help and that altruistic behavior is either neutral or perhaps mildly negative for these children. There are, however, data which show that young children do help. As Zahn-Waxler and Radke-Yarrow (1982) point out, "the choice of method and the age of the children selected for study may play a major role in 'determining' the age of emergence of altruism in children" (p. 111). In their studies with 10-20 month old children, they found that distress elicits some form of reaction (e.g., orientation, distress cries, or prosocial intervention) on between 80-90% of all occasions in which it occurs. Prosocial interventions occurred on the average of 11 to 39% of the time across the age groups. These data indicate that awareness of the helping norm is not always necessary before substantial prosocial behavior can occur. It may be that the typical "donating" paradigm used in mood studies is biased against young children because this paradigm assumes that young children are capable of the abstraction involved in helping a "distressed" other who is not present. That is, the methods used may not be appropriate for young children who may require the physical presence of the person in need as a stimulus to helping.

Another reason that the three-stage model may not be completely general is that it may not always be true that a negative mood will increase the tendency to help. As is clear from the literature, there are cases when a

negative mood will not increase prosocial behavior. Cialdini et al. (1981) recognized this, and they attempted to explain these discrepancies within the framework of the model. For example, one study which was viewed to be consistent with the model was conducted by Thompson, Cowan, and Rosenhan (1980). This study tested the hypothesis that focus of attention can mediate the relationship between negative affect and altruism. They found that persons in a negative mood who focused on others showed increases in helping, while those negative mood subjects who focused on themselves did not show such increases. Thompson et al. (1980) concluded that "focus determines the extent to which an altruistic act will be perceived as personally rewarding" (p. 298). That is, for those focused on themselves, altruism may not be perceived as sufficiently rewarding to warrant prosocial behavior. Cialdini et al. (1981,1982) contend that while Thompson et al.'s data do not show that negative mood increases helping across all conditions, it is, nevertheless, consistent with their model. They argue that Thompson et al.'s conclusion is in line with the NSR model (modified in light of Weyant's, 1978, study) which predicts that "if a helping opportunity is not perceived as likely to lead to a better mood, negative mood will not enhance helping" (Kenrick et al., 1979, p. 753). Thus, Thompson et al.'s (1980) study does appear to be congruent with the NSR model.

There are, however, other studies which are not so congruent. They suggest that negative mood subjects may be less attentive to their environment and, thus, may not be aware that another is in need of assistance (e.g., McMillen, Sanders, & Solomon, 1977). Other studies suggest that self-concern/ self-focus coupled with negative mood may lead to even less attention focused on the environment and, hence, even less helping (e.g., Gibbons & Wicklund, 1982). Furthermore, there is work on state-dependent memory and

mood-congruent selective attention (e.g., Bower, 1981) that may be relevant to the affect-altruism relationship. This work suggests the possibility that if helping acts have occured most often with positive moods (as positive moods seem to generally increase helping) then the memory of previous helping acts may be incongruent with a negative mood. This implies that helping would not be performed as readily or as quickly in a negative mood. This work is also consistent with the work on attentional deficits, as it suggests that mood affects perceptions of one's environment.

As the above examples indicate, there are many instances in which negative moods will not lead to helping. Although Cialdini et al. (1981) recognized that self-concern can lead to lowered helping because of attentional deficits, they do not seem concerned with the number of exceptions to the NSR model. It seems, then, that the view that negative moods will increase helping, while not wrong, is of limited generality. It would seem more general to state that increased helping under a negative mood will not occur, with the exception of the case in which a person perceives the reward value of helping.

It should be noted that this last statement is not by itself very satisfactory. There is still no indication as to what is meant by a negative mood and as to when people will perceive the reward value of a prosocial action. It may be that by differentiating between the types of negative moods which are evoked, we can more easily make predictions about when the reward value will be perceived. For example, guilt and sorrow may both be negative, but surely they are qualitatively different in that an individual is lead to be either more helpful so as to alleviate the mood state (guilt), or be less helpful as a result of increased self-concern (sorrow). Berkowitz (1972) and others (e.g., Cunningham, Steinberg & Grev, 1980) have made similar

distinctions, but for the most part, present theories appear to assume that mood state is a unidimensional construct and do not differentiate between how these different moods might affect helping. (Although for the NSR model "the negative state is seen to be a general one", Cialdini et al., 1973, p. 505, there is a distinction made between frustration/anger and other negative mood states).

The NSR model, as initially conceived (i.e., Cialdini et al., 1973) was very useful in integrating three models that attempted to explain the transgression-altruism relationship. The model was subsequently modified by Cialdini and Kenrick (1976) to include the notion that altruism becomes self-reinforcing as a function of the socialization process. This extension was most important because it sought to explain seemingly discrepant findings via a developmental model, though it was limited because only socialization processes were considered. Finally, Kenrick et al. (1979) further explicated Cialdini and Kenrick's notions by suggesting the three-step model investigated in this study. Despite the modifications to the NSR model, the fundamental assumption has remained the same: that is, that persons (beyond early childhood) in a "negative mood strive to make themselves feel better again" (Cialdini et al., 1982, p.341), and if given the opportunity, they will use altruism as a means of doing so. As has been seen, there are studies that show persons will not employ altruism to relieve a negative mood. While we agree with Cialdini and his colleagues that "maintenance of a negative state is probably not a goal of most people" (Isen, Shalker, Clark, & Karp, 1978, p. 10), we do not believe that people will necessarily jump at the opportunity to relieve their negative state by being altruistic. Whether they will use altruism instrumentally or not depends partly upon the mood evoked. Although differentiating between mood states may not be as economical as the NSR model

initially sought to be, it may lead to somewhat better predictions of when a negative mood will or will not increase prosocial behavior. Nevertheless, we feel as do Rosenhan et al. (1981) that none of the existing affect-altruism theories are "yet powerful enough to accomodate all of the data" (Rosenhan et al., 1981, p. 245).

Future directions

Perhaps an explanation which posits mood state as mediating helping behavior without also considering other variables is unrealistic. In fact, Wispe (1980), in his review of the mood and helping literature, concluded that "as a possible explanation for helping, the concept of moods is a particularly unfortunate choice" (p. 12). He has persuasively argued that both theoretical weaknesses (e.g., lack of a clear explanation of how moods mediate helping behavior) and methodological weaknesses (e.g., demand effects) have resulted in an inconsistent literature which has failed to advance our understanding of prosocial behavior.

In addition to the issues raised by Wispe (1980), we must question the ecological validity of the mood and helping studies; that is, do moods actually affect helping in real world situations. In adults, at least, moods do not seem to be as central a mediator of helping behavior as do, for example, overload (e.g., Milgram, 1970), ambiguity (e.g., Clark & Word, 1972), and cost (e.g., Walster & Piliavin, 1972), not to mention personal characteristics of the recipient and the help giver. Moreover, these factors have been found to operate in real life settings, whereas the mood studies have, for the most part, been conducted with paradigms which are not representative of real life helping situations.

As with adults, mood states do not seem to be a central mediator of children's helping behavior. Many of the situational and personal factors

affecting adult helping also seem to affect children (Staub, 1978). In addition, factors related to a child's development, such as the ability to take another's perspective (Underwood & Moore, 1982) or to know the characteristics of effective helping (Barnett, Darcie, Holland, & Kobasigawa, 1982), seem to be important in determining helping behavior (see also Mussen & Eisenberg-Berg, 1977; Staub, 1979).

From the above discussion, it appears that when compared to other factors, mood states will probably not be strong predictors of helping behavior. We are not suggesting, however, as does Wispe (1980), that mood state should not be considered at all in studies of prosocial behavior. Rather, we feel that moods may have an effect on some, but not all, types of helping. If moods are to be considered, several steps should be taken to ensure a clearer conceptualization of their operation as mediators of helping. First, as was mentioned above, there is a need to differentiate between the types of negative moods which are evoked.

Second, researchers should be more specific in defining what types of helping will be increased or decreased as a function of mood state. That is, we should not expect that moods will affect the whole range of possible helping situations. Instead, some types of helping are more likely to be affected by moods (e.g., donation behavior) than others (e.g., bystander intervention). What is needed, then, is a taxonomy of situations in which moods will or will not affect helping. As with our first suggestion, this taxonomy should help define the manner in which moods mediate helping.

Third, the effect of mood states on helping should be related to other developmental processes. Cialdini and Kenrick (1976) and Kenrick et al. (1979) have attempted to do this, but they only considered socialization processes. There exists, however, the possibility that sharing behavior is

also mediated by the child's cognitive state and/or the value of the objects to be shared and, further, that cognitive state and/or object value may interact differentially with mood state.

Finally, in theorizing about the situational factors influencing prosocial behavior, we need to take a more contextual approach; that is, the helping literature has typically looked at situational or personal factors affecting helping in isolation, rather than considering many factors at once. Consequently, it has not been possible to consider the relative strengths of these factors as predictors of helping, the interactions among them, the interaction of these factors with the type of helping situation, and so on. A broader multivariate approach is needed to emphasize the links between the person attributes (as in suggestions one and three above), environmental attributes (as in the second suggestion above), activities (linking suggestions one and two), and time (e.g., duration of the helping situation or of the mood state - temporary or chronic). (See Stokols, 1982, for a discussion of contextual research.) Such analyses should help further delineate the manner in which moods, as well as other factors, mediate helping.

In sum, the results of this study provide weak support for the notion that moods can affect helping, but no support for the notion that helping relieves negative mood states. It is our contention that moods are not a strong predictor of helping behavior. We feel, however, that under certain conditions mood state might be a stronger predictor than it now appears. If the mood-helping relationship is to be studied, we have outlined several steps which should help clarify the construct of mood. Such a situational/contextual analysis would allow researchers to better predict when mood would or would not be an important mediator of prosocial beahvior.

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Footnotes

1) In order to maintain the familywise error rate at alpha < .05 for the amount donated analyses, a more stringent per comparison rate was determined using the Bonferroni test (Keppel, 1982). Thus, the only comparisons considered statistically significant are those for which $p < .007$. It should be noted that had we adopted a less stringent criterion based on the modified Bonferroni (Keppel, 1982) the results would not have changed.

2) Kenrick et al. (1979) analyzed their data by employing a priori contrasts rather than an omnibus F test followed by subsequent tests. Using their approach for the stage 2 children, we first compared the public-negative condition with the private-negative condition in order to determine whether, as predicted by the model, children in the former condition would share more than those in the latter condition. The results of this comparison revealed that the public-negative condition did not share more than those in the private-negative condition ($t(60) = .46$, $p = .65$). We then compared the private-negative condition with the public and private neutral conditions, which according to the model should not differ from each other. This second comparison was also not in line with predictions, and revealed that the public-negative condition did share more than those in the private and public neutral conditions ($t(60) = 2.037$, $p < .05$).

The above comparisons would not be applicable to the other two age groups as there are different predictions for the different groups. In addition, including gender as a variable in the analysis would have further complicated the construction of orthogonal a priori contrasts for the different age groups. Thus, given our design, we felt that the most straightforward approach to the analysis was the one presented in the Results section, rather than employing a priori contrasts.

Table 1

Means and Standard Deviations for

Mood Checks at Time 1 and Time 2

by Gender, Mood, and Grade

	Gender			
	Male		Female	
	Mood			
	Neutral	Negative	Neutral	Negative
K - First				
Time 1	4.38	1.31	4.06	1.19
	(1.02)	(.48)	(.93)	(.54)
Time 2	4.31	4.13	4.38	3.25
	(.95)	(1.09)	(.81)	(1.81)
4th - 5th				
Time 1	3.75	1.75	4.00	1.56
	(.93)	(.86)	(.82)	(.81)
Time 2	4.31	3.81	4.69	4.06
	(.70)	(.83)	(.60)	(.77)
9th - 10th				
Time 1	3.38	1.88	3.94	1.31
	(.50)	(.81)	(.68)	(.70)
Time 2	3.69	3.75	4.31	4.19
	(.79)	(.93)	(.70)	(.54)

Note: Standard deviations are in parentheses.

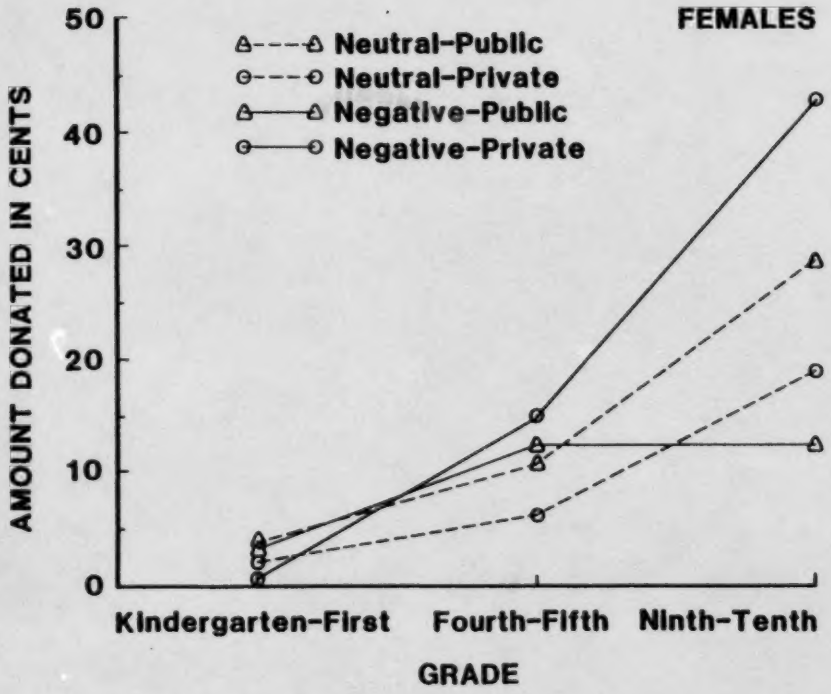
Table 2

Mean Amount of Money Donated in Cents

by Mood, Sharing Condition, Grade and Gender

	Mood			
	Neutral		Negative	
	Sharing Condition			
	Private	Public	Private	Public
K-First				
Male	5.00	11.87	1.88	4.38
	(8.5)	(18.7)	(1.8)	(10.5)
Female	1.87	3.75	0.63	3.13
	(5.3)	(5.8)	(1.8)	(8.8)
4th-5th				
Male	5.00	6.25	8.75	13.75
	(6.6)	(4.4)	(9.9)	(8.8)
Female	6.25	10.63	15.00	12.50
	(5.2)	(6.2)	(8.5)	(10.4)
9th-10th				
Male	22.50	20.63	25.63	21.25
	(23.8)	(15.7)	(22.9)	(15.3)
Female	18.13	28.75	43.13	12.50
	(19.6)	(30.2)	(26.4)	(11.0)

Note: Standard deviations are in parentheses.


FEMALES
Neutral-Public
Neutral-Private
Negative-Public
Negative-Private
AMOUNT DONATED IN CENTS
50
40
30
20
10
0
Kindergarten-First
Fourth-Fifth
Ninth-Tenth
GRADE

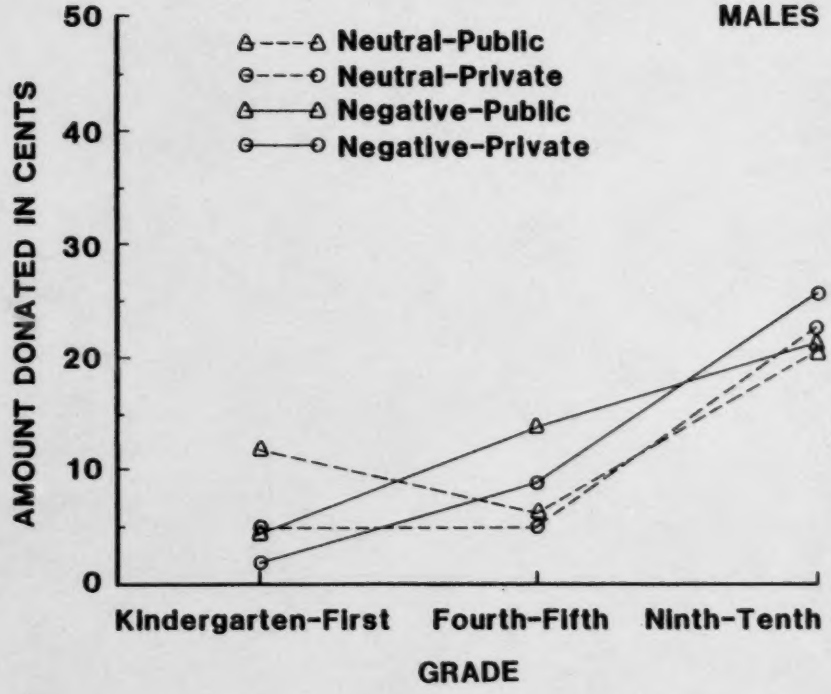

MALES
Neutral-Public
Neutral-Private
Negative-Public
Negative-Private
AMOUNT DONATED IN CENTS
50
40
30
20
10
0
Kindergarten-First
Fourth-Fifth
Ninth-Tenth
GRADE

Figure Caption

Figure 1. Mean amount donated by mood, sharing condition, and gender as a function of grade level.